MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

NEW SERIES. Perfect Agricultur e is the foundation of all Trade and Industry.—Liebig.

VOL. VI. DETROIT, JANUARY, 1, 1848. NO. 1.

MICHIGAN FARMER,

WARREN ISHAM, EDITOR.

PUBLISHED SEMI-MONTHLY—TERMS $1 IN ADVANCE—FIVE COPIES FOR $4.

A talk with a Farmer.

The following conversation took place not long since between the Editor of this paper and a farmer in Oakland county. It is but fair to remark, however, that farmers of this class are few in number, and that number constantly diminishing.

Editor. Well, Mr. B. do you take an agricultural paper?

Farmer. Any agerculteral *paper!* Ha! do you think I'm a fool? I should be a fool, to be sure, if, after twenty years' experience I coul'nt farm it without going to the news-papers.

Farmer's wife. No, and more'n all that, he shant take any, I'll warrant the case. I'm not going to have him lazying about the house reading newspapers. That's jest the way to make the men lazy.

Ed. But, Mr. B. where did you learn your experience which has been so valuable to you?

Far. I learnt it from my old father before me.

Ed. Ah, indeed! but how is that?

Far. How! Easy enough. When he set me to a piece of work he told how to do it, and I guess he knowd as well as any of your *book-farmers*, how to do work. Do you think he did'nt.

Ed. Very well—but suppose your father, instead of telling you by the word of mouth how to do, had written his instructions down, and had gotten them printed in an agricultural paper, and had put the paper into your hands for a guide, would not this have made a book farmer of you?

Far. Hem! Hem! Hem!

Ed. You see then, that you are about the same thing as a book-farmer after all. Agricultural papers abound in instructions written down by our best farmers, and published for the benefit of others.

Far. Hem!

Ed. Your father might have been a first rate farmer in *his* day, but do you think no improvements in farming have been made since? Why is it, that you are not using the same miserable hook for a plow, which was in use centuries ago? Here is a specimen, (making a mark on the sand.)

Would you not laugh to see a man now-a-days, following such a plough?

Far. Ha! Ha! Hem!

Ed. But those ancient people learned their experience from their good old fathers before them.

Far. Hem!

Ed. And their fathers were, no doubt, first rate farmers in *their* day, and they thought no better implement could be made.

Far. Hem!

Ed. But you see what wonderful improvements have been made—and improvements are advancing far more rapidly now than formerly. In those days, if a discovery was made, a knowledge of it could only be communicated from one to another by the word of mouth, and centuries would pass away before an improvement would be generally adopted, even in a single nation, whereas, now, by means of agricultural papers, farmers living thousands of miles apart, may at once avail themselves of the benefits of each others improvements—and where is the farmer, that has a tolerable share of good common sense, who, in the course of ten years' experience, never discovered any thing which would be useful to others engaged in the same vocation. Knowledge to *direct* your experience is what you want, and it matters not where it comes from if it be correct.

Far. Aye, now you have hit the nail on the head—"*if it be correct.*" The truth is, them papers are filled with a pack of lies. I know a man in York State who went and swore, that he raised a hundred and twenty-six bushels of corn on an acre, but the way he done it was, that he went in the night, when harvesting it, and put corn from another field in with it.

Far. Wife. I tell you he shant take a culteral paper. He shant fool away his time reading such nonsense. I'd rather he'd be employed making bass-wood whistles.

Ed. But, Mr. B. did you see that operation performed, which you just now spoke of?

Far. No, but I know he could'nt raise so much corn on an acre, and every body knowd it.

Ed. But, did you ever put an acre of land in the same state of cultivation, and plant it to corn, and bestow the same labor upon it, that he did, and was the result such as to justify you in saying, that you know an acre could never produce so much?

Far. No, I never was fool enough for that.

Ed. Then you can see at once that you are not a competent judge in the case. The truth

is, this man, by having his eyes open upon the improvements of the day, was able to do things which your experience seemed to tell you were impossible. You did not stop to consider, that your experience was so different from his, that it afforded you no light on the subject. But let me ask, if in your long experience as a farmer, you have never made any discovery which you thought would be useful to others?

Far. To be sure I have.

And do you not think that others make discoveries which would be useful to you?

Far. Well I s'pose they do.

Ed. And may you not as well come to a knowledge of them through an agricultural paper, as any other way?

Far. O, these things are all well enough for those who can afford the expense. For my part I have no money to spend in these experiments, without knowing whether it will be of any use or not.

Ed. But you need not plunge headlong into experiments on a large scale. Most improvements recommended may be tried on a small scale and at little expense, and if found to be of manifest utility, then you may safely and profitably adopt them.

Farmer C. Well, neighbor B., I guess you will have to give it up. We are fairly made out to be mere book-farmers after all we have to say about our experience. Our fathers were the book from which we learned our lessons, instead of agricultural papers, and I don't see but we may as well read our lessons out of one book as another,—and surely a farmer of our own day, who understands his business, is a better book to us than those who knew nothing of the wonderful improvements of the present day, although they might have been the best farmers of their time. To them indeed we are much indebted, for they taught us our A B C's in agriculture, and carried us along as far as they themselves had gone.

Far. B. Well, I confess I never thought so much about that before, but I b'lieve there's something in it.

Far. B's wife. So you're going to be converted, aint you. I wonder if you will have the wool pulled over your eyes that way. Well, I know one thing, if ever a paper comes into this house, it shall go straight into the fire. That it shall.

Far. B. But I've hearn, Mr. C. that this kind of papers are not the thing for this new country, nohow.

Far. C. It is true, that agricultural papers published at the East, are not so well adapted to the new state of things among us, but now that we have one of our own, that knows our wants, I have no doubt that we may derive great benefit from it. But we are not to expect that the whole paper will be devoted to our own special benefit, to the neglect of others who are differently circumstanced. There are a great many varieties of soil in our State, and we have farmers in every stage of improvement, some far advanced and others just commencing a new farm, and all these varieties will claim a share of attention. But if a reasonable regard is paid to our wants, we shall, no doubt, be able, in the run of a year, to pick up a great many hints, which will be of great use to us. At any rate I would not be without the paper for ten times the amount of subscription.

Far. B. But I am too poor to take one.

Far. C. And I am too poor to be without one. I cannot afford to dispense with the advantages which they offer me, nor would you, if you were to take one a while.

Far. Well, perhaps I'll try it another year.

[Exeunt Omni.

The Hessian Fly--Its Ravages.

Facts and Reasonings for Consideration.

In recently traversing the county of Oakland, we every where discovered traces of the ravages of this insect, the subtle enemy of the wheat crop. In most of the early sown fields, especially, the marks of its depredations were clearly visible, and in many of them the crop appeared to be destroyed beyond hope of recovery.

The farmers of Oakland, suffered the loss of their last year's crop, to a great extent, from the same cause, and as they look forward with serious apprehension to a recurrence of the calamity another season, many of them, are greatly discouraged, and the inquiry goes round, "What *shall* we do? What *can* we do?" The general conclusion is, that nothing can be done, and that the farmer may as well set his heart at rest on the subject. "For more than seventy years," says one, "has the insect preyed upon the wheat crops of the land and no remedy has been found, and it is preposterous to suppose, that we, at this late day, shall discover one." "The insect," says another, "is so nearly of the same nature with the plant on wnich it feeds, that you cannot destroy the one without destroying the other."

But there are intelligent and enterprising farmers in that county who do not thus fold their arms in despair. Dr. Wilson, of West Bloomfield, a very scientific farmer, (as well as skilful physician,) informed us, that he sowed plaster on a field of wheat which had turned yellow, and appeared to be dying, apparently from the ravages of the insect, and the consequence was, that it revived at once, changed color, and grew vigorously. A heavy crop crowned the experiment. Land sandy. Mr. Cruice, an intelligent

gentleman from Ireland, who has a delightful location upon the margin of Orchard Lake, made a similar experiment. His wheat, he remarked, when the plaster was applied, presented quite as hopeless a prospect of a crop as that of his neighbors which they plowed up. He had a yield of ten bushels to the acre. Had the plaster been seasonably applied, he would probably have had a full crop. Both these experiments, as we understood the matter, were made upon the last crop. The year previous Mr. Cruice had a field of wheat which exhibited similar symptoms of decline, and appeared to be in a dying state. He sowed two barrels of plaster on twelve acres out of fifteen. The part plastered grew astonishingly, and the fifteen acres produced a yield of 330 bushels, making an average of twenty-two bushels to the acre, the part plastered yielding about twice as much per acre as the part left unplastered. In both the last mentioned cases the land was rather sandy.

Another farmer said to us, that he believed he had at last found a remedy for the insect, as his wheat, though sown early, had entirely escaped its ravages, while that of his neighbors around him, was apparently destroyed. The secret of his exemption, as he supposed, was, that he had sown his wheat upon turf land.

A *general* fact, which every where obtruded itself upon the observation was, that the lighter the soil the more devastating were the ravages of the destroyer. It is true, that in some portions of the county, naturally of superior fertility, the insect has made fearful inroads upon the wheat crop. But they are portions which have been under cultivation for a series of years, and have been continually, though imperceptibly it may be, undergoing a process of deterioration, so that doubtless certain ingredients of the soil, which are essential to the healthful growth of the plant, have been so far exhausted as no longer to retain their due proportions.

It is a common remark among farmers, that the *first* crop of wheat, well put in, upon a soil naturally fertile, is in little danger from insects. They may invade it, and frequently do, but we have yet to learn the instance, in which they have materially injured it. There may be, and doubtless are, soils originally light, and even those which are naturally fertile, but badly prepared, on which the first crop even, would not be secure.

And what is the conclusion to which we are conducted, in the light of these facts? Can it be mistaken? We would not rely, with overweening confidence, upon a single isolated fact, sustained by a single experiment, perhaps imperfectly made, and under circumstances which, from their peculiarity, prove nothing as to the practicability of its universal application. But when there are different classes of facts, well ascertained, and general in their application, all pointing to the same conclusion, then we may speak in more decided tones. Nor are we to discard a conclusion, merely because some one or more of the facts adduced in its support, are proved to be groundless, *provided* there are other facts well attested, and uninvalidated, sufficient, of themselves, to establish it.

What then, we ask again, is the conclusion to be arrived at, from a careful consideration of the above facts? Is it not—and is there any escape from the inference—that the disasters to the wheat crop from this cause, are to be ascribed mainly to bad husbandry? How are we to account for the effect of plaster, in the cases mentioned above, if not upon the principle, that the soil was deficient in certain qualities necessary to sustain the plant and make it *insect-proof*, and that this deficiency was supplied by the application of plaster? And does not the favored exemption of wheat sown upon turf land, in the instance above mentioned, seem to show, that the soil, having enjoyed an opportunity to replenish its resources, had regained its deficient qualities, in due proportion? And if it be a general fact that the wheat crop is exposed to injury from this cause in proportion to the lightness or exhaustion of the soil, while upon the original, virgin soil of the country, of good quality, it is endued with a constitutional vigor which secures it against material injury, then does it not follow, that the true remedy for the evil, is to be sought *in the improvement of the soil*—in bringing it up to the standard of healthy production, established by the great author of nature?

Nor is there any thing in the *history* of this insect to impair the validity of our argument—but on the other hand, our position gathers strength from this very quarter. A communication published in Carey's Museum, dated, Hunterdon, New Jersey, Jan. 1, 1787, proposes as a remedy, "sowing on *rich land*." Another communication appeared in the same publication,

dated, Prospect Hill, Delaware, June 12, 1792, which states, that the wheat crop in that region, had been entirely destroyed, "except what was growing *upon a rich soil.* And Dr. Fitch, in his celebrated essay upon the Hessian Fly, published a few months since, and with which the readers of the Farmer, have been made acquainted, remarks, that "a striking contrast may often be perceived in different parts of the same field, the summits of knolls and ridges, situations where the soil is most meagre almost invariably showing the greatest amount of damage, whilst the intervening hollows, to which fertilizing matters are washed from the surrounding acclivities, sustain a comparatively slight, if at all sensible injury: yet, he continues, the latter situations are the very ones, which insects of this family are known to be most prone to frequent, being more low, shady, and damp!! He adds, that "the farmers themselves, in districts where the fly has prevailed, have all learned from experience, that it is only upon fertile lands, that it will do to sow their wheat."

Is it not sufficiently manifest, then, that the farmer would find an almost certain remedy for this evil in the improvement of the soil—and that by neglecting to improve his light lands, and suffering those which were originally fertile, to run down, he is effectually preparing the way for the destruction of his hopes—to say nothing of the bad policy of such management, even if such a consequence were not to be apprehended?

This consequence, however, would seem to be the penalty affixed to the over-tasking rapacity of man. And happy will it be for our farmers, if they are thus *scourged* into a better system of husbandry. Then will the lessons which they have been so slow to learn, be turned to profitable account, and the very cause which threatened the destruction of their hopes, be made available to their permanent prosperity, and thus will their dear-bought experience be made to yield them a golden harvest.

Do you say, that all this looks well—excellect—and that you will speedily set yourself to the task of reform, but that you despair of living to see it accomplished, unless you can have present relief? But do you not see, that the facts adduced, while they go to establish the above position, place within your reach at the same time, the very relief you ask? The lighter soils on which the wheat crop is most liable to injury from this cause, are the very ones on which plaster produces its happiest effects. As a temporary expedient, it will undoubtedly be found to be, to a considerable degree, efficacious, in averting the calamity, *provided* it be applied in a moist time, and the season which follows be not excessively dry, requiring as it does 400 parts of rain-water to one of its own weight for solution. Its beneficial effects extend to all kinds of soils, except stiff clays, and even to those if applied in conjunction with lime.

Plaster on Wheat.—That justly celebrated agriculturist, judge Buel, took the broad ground, we believe, that plaster was in no case, beneficial to the wheat crop. This opinion might have originated in the fact, that the most thorough chemical analysis had never detected a trace of this sulphate in the wheat plant, as a constituent part of its organic structure. But the discovery, that plaster acts mainly by absorbing ammonia, and thus preventing its escape from the soil by evaporation, places the thing in quite another light. Such being its mode of action, it would be strange indeed, if its effect upon this crop, in some soils, was not marked and striking. And hence, we are not at all taken by surprise upon meeting with such facts as we have recorded in the preceding article in relation to the effect of plaster on wheat. Those facts are in perfect accordance with the mode of action now with good reason ascribed to this fertilizing agent.

But we have in reserve another fact, which bears with equal force, upon this same point.—Mr. C. C. Lee, who cultivates a large farm in the township of Waterford, Oakland Co. had, last year, fifty acres of wheat in one field so badly winter killed, that in the spring it appeared as though it would scarcely be worth harvesting. Upon forty out of the fifty acres, he sowed three barrels of plaster. The part plastered yielded about ten bushels to the acre, and the part left unplastered, about half as much—land rather sandy.

The Starch Factory at Almonte.—The Starch Manufactory at Almonte, Lapeer county, consumes, we are told, a hundred and fifty thousand bushels of potatoes annually, for which are paid only ten cents per bushel (that was the price but a short time since,) notwithstanding the very great rise in the article here and elsewhere, in

consequence of the rot. In Vermont the Starch manufacturers, who formerly paid only ten cts. a bushel for potatoes, are now compelled, in consequence of the rot, to pay twenty-five cents a bushel, and it is said they make good profits at that. And surely in this state, where fuel and every kind of provision is so much cheaper than in Vermont, the manufacturers can afford to pay a price at least equally high.

Substitute for the Potato recommended.—A report has been made to the French Academy upon the product of a farinaceous plant, indigenous to Labrador and the North part of Canada, by M. Lamere Piquet, who has just returned from Labrador, and who seems to think it a good substitute for the potato, and even for wheat.—The plant requires no cultivation, and its fruit is eaten uncooked, ripening two years from planting.

Maple Groves.—Those who have passed from Birmingham to Pontiac, Oakland county, could not have failed to notice a delightful grove of sugar Maple, upon the farm of Dea. E. S. Fish, of Bloomfield, close by the road-side. The trees were taken from the timbered land in another part of the town, some eight or ten years ago, we should think, and set out in regular rows, like an orchard of fruit trees, upon common opening land, being probably a mixture of sand, gravel, loam and clay. They are now so large that Dea. F. thinks of tapping them the ensuing season.

And is not this a matter worthy the attention of farmers generally? What more delightful scenery can occupy the grounds near the family residence? And to what use can the land be devoted, to obtain a more profitable return? Far more profitable must such a sugar grove be, than one at a distance from the house, and scattered over a considerable extent of ground. In the latter case the trouble and expense of collecting the sap, is by no means inconsiderable.

A few trees, of the first setting, died, but they were promptly replaced, and they now stand in unbroken columns.

Planting Ruta Bagas.—Mr. James Richardson, of West Bloomfield, Oakland county, has been trying the experiment of planting, instead of sowing ruta bagas, and on a piece of ground nineteen yards by thirty, he raised fifty-four bushels, which if our estimate be correct, would be at the rate of four hundred and fifty-five bushels to the acre. One of the largest size, weighed seventeen and a half pounds. The hills were three feet apart, each way. We did not understand that any special care had been bestowed upon the preparation of the land.

Salt A Fertilizer.

A writer in the American Quarterly Journal, published at Albany, N. Y., after speaking of the utility of salt in destroying the grub and wire worms, affirms, that, as the result of various experiments, it appears, that the potato disease has never been found upon ground which had a proper dressing of salt. He mentions the names of Judge Hamilton, of Schoharie, Dr. Bogart, of Staten Island, E. M. Stone, and others who had tried the experiment, and as the result, they testify, that potatoes on the salted land, grew much more vigorously than those planted by their side in the same field, where no salt was applied—that the former gave a much better yield, were large, fair and sound, and of good quality, while the latter were smaller, watery, and rotted badly.

From an experiment made by G. C. Mather, of Scaghticoke, not only is the same general conclusion sustained, but it was noticed as an important result, that although the season was excessively dry, the salted land continued moist, insomuch, that neither corn, potatoes nor oats suffered, while crops upon surrounding lands were much affected by the drouth. Clover took well, and grew rapidly, while it was killed out by the drouth in the whole neighborhood around him.—On the part of the field left unsalted, (it being sward land,) the corn was entirely destroyed by the corn worm, while it was left undisturbed on the salted part. He had found it highly beneficial to his meadow land.

Mr. Brown, President of the Onondaga Agricultural Society, stated before the Society, that he found that three bushels of salt to the acre on his wheat field, occasioned an increase of seventeen bushels of wheat to the acre over that which had no salt—soil a strong loam, with a stiff subsoil—salt sown just before sowing the wheat.

The following extract shows the remarkable effect of salt upon a kind of land, which is generally considered nearly worthless.

It is stated in an English publication, that "a farmer in county of Sussex, some years since, had a field, one part of which was very wet and

rushy, and that grass produced upon it was of so sour and unpleasant a kind that the cattle would not graze upon it; he tried several methods to improve it, but to little purpose; at last having heard of the benefits of salt as a manure, he determined to try that; for which purpose he procured a quantity of rock salt, which in a random way, without any regard to the precise quantity, he threw upon the rushy ground, fencing it off from the other part of the field, the effect of which was a total disappearance of every kind of vegetation. In a short time, however, it produced the largest quantity of mushrooms ever seen upon an equal space of ground in the country. These, in the spring following were succeeded by the most plentiful and luxuriant crop of grass, far exceeding the other part of the field in richness of its verdue and the quickness of its growth; the cattle were remarkably fond of it, and though the salt was laid on it twenty years before, this part is still superior to the rest of the field."

Running out of Varieties, Change of Seed.

The doctrine maintained in the following article, which appears as an editorial in the Albany Cultivator, is somewhat at variance with public opinion. That change of seed is frequently beneficial, we have no doubt. But how far the resulting benefit is to be ascribed to the fact, that when the farmer is at the trouble and expense of procuring seed from a distance, he sees to it, that he gets it of the very best quality, while he is satisfied with seed of very indifferent quality, when he is at no such trouble and expense, we are not competent to decide. We *do* know, however, that varieties of wheat and other products of the soil, are very much improved, and new varieties originated, by a careful selection of the choicest seed, and bestowing upon it appropriate culture, *without a change of seed.* Before the farmer can fairly settle the question then, he must sow as good seed of his own raising *generally*, as that which he gets from a distance *occasionally.*

We have often spoken in reference to this subject. Still there is no doubt many entertain the idea that varieties of grain, vegetables, and fruits, have their periods of existence. Another idea, akin to this is, that it is necessary to "change seed"—that a kind of corn, potatoes, or other vegetables, naturally tends to degenerate, when its cultivation is continued on the same farm; and that to insure the best crops, seed must occasionally be procured from a distance. We believe that the reverse of this is true—that the tendency is to naturalize on every spot of earth those species and varieties best adapted to the situation and circumstances. Man, it is true may counteract this effort of nature by modes of propagation adverse to the principle. The natural course would be to encourage and continue those plants which had best adapted themselves to the location, and which would from generation to generation produce the most perfect seed and the most vigorous stock. Man, instead of this sows the seed perhaps, of those plants which are least perfect, and which, in consequence, produce a degenerate stock, declining still more with each generation.

It should be the aim of every farmer to procure in the first instance, those kinds of grain or vegetables, which, from their known character, would be most likely to succeed on his land; and then to select seed from those particular plants or stocks which are found in the greatest perfection. Let this course be strictly and constantly followed, and no change made, (unless as a mere experiment on a small scale,) till it is *certain* that a *better* kind can be substituted.

We lately met with some striking facts in reference to this subject, in an article written by Joseph Cooper, of Cooper's Point, New Jersey and published in the *Memoirs of the Pennsylvania Agricultural Society.* The article was written in 1799, and shortly after its appearance in this country, it was re-published in Europe, where it received much attention. Mr. Cooper was led by his own experience and observation, continued through more than forty years, to repudiate the idea—"that changing seeds, roots, and plants to distant places, or different soils or climates, is beneficial to agriculture." He says—

"In or about the year 1746, my father procured the seeds of the long early squash, which have been kept on the farm ever since without changing, and are now *far preferable* to what they were at first. Our early peas were procured from London the spring before Braddock's defeat, (1756,) and have been planted successively every season since, on the same place. They have not been changed, and are now preferable to what they were when first obtained. The seed of our asparagus was procured from New-York in 1752, and since that time I have not planted a seed except what grew on my beds and by selecting the seed from the largest stalks I have improved it greatly. A complaint is very general that potatoes of every kind degenerate, at which I am not surprised, when the most proper means to produce that effect are constantly practiced, to wit: using or selling the best, and planting the refuse; by which means almost the whole of those planted are most degenerated. This consideration induced me to try an opposite method. Having often observed that some plants or vines produced potatoes larger, better shaped, and in greater abundance than others, without any apparent reason except the operation of nature, it induced me to save a quantity

from such only for planting the ensuing season; and I was highly gratified in finding their production exceed that of others of the same kind planted at the same time, and with every equal advantage. By continuing the practice, I am satisfied I have been fully compensated for all the additional trouble."

Mr. Cooper also states that about the year 1772, he received a few grains of a small kind of Indian corn, said to have come originally from Guinea, and to have the habit of bearing eight to ten ears on a stalk. The corn was planted, and the ears were of a very small size small kernel, and but little ripened before frost. He saved some of the largest and earliest, and the next season planted them between rows of a larger and earlier kind. He saved seeds from stalks that produced the greatest number of the largest and most perfect ears, and were the *first to ripen*, which he planted the ensuing season, and he found the product superior in quantity and quality to any he had ever before raised. He continued to plant that kind of corn, always being careful to select the seed, and it proved so valuable that he never changed it. He gathered the seed in the field, selecting the earliest and best ears—or rather, selecting from stalks containing the greatest number of good ears.

He mentions also a striking example in regard to melons. He received from Georgia some seeds of a kind of water-melon represented to be of superior quality. He says—"knowing that seed from vegetables which had grown in more southern climates required a longer summer than that produced here, I gave them the most favorable situation, and used glasses to bring them forward, yet very few ripened to perfection; but finding them to be as excellent in quality as described, I saved seed from those first ripe, and by continuing that practice four or five years, they became as early melons as I ever had."

A similar instance in regard to the naturalization of melons came within the knowledge of the writer. Several years since, a gentleman near Zanesville, Ohio, brought from the southern part of Virginia some seeds of a choice variety of water melon. The kind had been cultivated in the neighborhood from which the seeds were taken with great care, and kept entirely free from any intermixture for fifty years. The new location afforded a season hardly long enough for their full maturity, but by taking care to select the earliest, the variety became in a few years adapted to the climate, and our friend became noted for the finest water-melons ever known in the region.

Agricultural Fair.—The Galway Girls.—Coleman, in his European Agriculture, after giving an account of several fairs in the North of Ireland, at a single one of which a million and a half of dollars were employed, proceeds to speak of one called the Fair of Rose Mount, near Galway, at which was an immense gathering of people, and among other things no less than four thousand ponies. In enumerating the great variety of interesting objects which came under his observation, he thus proceeds:

"At twelve o'clock we went, as directed, to a part of the ground higher than the rest of the field, where we found from sixty to a hundred young women, well dressed, with good looks and good manners, and presenting a spectacle quite worth any civil man's looking at, and in which, I can assure my readers, there was nothing to offend any civil or modest man's feelings.—These were the marriageable girls of the country, who had come to show themselves, on the occasion, to the young men and others who wanted wives; and this was the plain and simple custom of the fair. I am free to say that I saw in the custom no very great impropriety. It certainly did not imply that, though they were ready to be had, any body could have them. It was not a Circassian slave-market, where the richest purchaser could make his selection.—They were in no sense of the term on sale; nor did they abandon their own right of choice; but that which is done constantly in more refined society, under various covers and pretences—at theatres, balls, and public exhibitions; I will say nothing about churches,—was done by these humble and unpretending people in this straight forward manner.

Death of Cattle in Corn Fields.—In passing through the township of Royal Oak a few weeks since, we were informed, that a great many cattle were dying off in that region, from some terrible malady, and it was observed, that only those which had been turned into cornfields, had been the victims. The cause was conjectured to be smut. From the following, however, which we take from the Prairie Farmer, it appears, that the same fatal effect, from turning cattle into cornfields, has followed, in other parts of the country, and that the cause and treatment of the complaint seems to be pretty well understood.

We have seen several published accounts of the death of cattle in cornfields, though no such accounts have been communicated to us. We noticed one of these, sometime since; but as no description of symptoms was given, we could only guess at the cause. This we supposed might be smut.

On dissection, however, it appears that quantities of the fibres of corn husks are found lodged and wadded in the third stomach or manyplies, commonly called the manyfolds; forming a case somewhat analogous to that called "Mad Itch," described in our third volume; as also to that in

the present, as occurring among sheep. It would appear to be caused by eating too much food from which the natural juices have dried out—or, perhaps, from some cause, become partially acrid and malignant.

Diseases of this sort are highly inflammatory; and require in the case of cattle, very prompt treatment. Clatter says that if the inflamation be high, bleeding should be resorted to, and that from six to eight quarts of blood should be taken at once; after which the following may be given:

"Take Epsom Salts, half a pound; the kernel of the Croton nut, ten grains; take the shell off the Croton nut, and weigh the proper quantity of the kernel; rub it to a fine powder; gradually mix it with half a pint of thick gruel and give it, and immediately afterwards give the salts dissolved in a pint and a half of thinner gruel."

Every six hours a dose of half lb. of Epsom salts and quarter of an ounce of Caraway seeds, may be given, If the inflamation does not subside, a second or third bleeding may be resorted to. If purging is not produced after the third dose of medicine, a pound of common salt may be given. Water will aid in producing evacuation, which must be secured at all hazards.

Silas Wright's Address.

The following is an extract from the address of Silas Wright, which was to have been delivered before the New York State Agricultural Society, had he lived.

All are willing to promote the cause of agriculture in our State and country. Most are ready to lend an active co-operation, and all are cheerful to see accomplished any valuable improvement in this great branch of productive industry. The difficulty hitherto has been in adopting any general plan to effect this desirable object. Hence, most usually, when the public mind has been awakened to the subject, arbitrary, and in many cases visionary experiments have been introduced, based upon no philosophical investigation of cause and effect, but upon some novel mode of culture, which, under the circumstances attending the experiment, has met with success. The single experiment, without an inquiry into, or a knowledge of the cause which, in the given case, has secured the successful result, is at once recommended as an infallible rule of husbandry. The publication and dissemination of detached experiments of this character, for a long period, constituted the most material additions to the stock of literary information connected with agriculture, supplied to our farmers; while many of the experiments were too intricate and complicated to be reduced to practice with any certainty of accuracy, and others were so expensive that the most perfect success would not warrant the outlay. Unsuccessful attempts to follow the directions given for making these experiments, brought what came to be denominated "book farming," into great disrepute with the industrious, frugal and successful farmers of the country, and excited a jealousy of, and a prejudice against this description of information upon agricultural subjects, which it has cost years of patient and unceasing effort in any measure to allay, and which are not yet removed.

In the mean time geological research, heretofore principally confined to investigations into the mineral kingdom proper, has been extended to its legitimate office, and has brought within its examinations the formation of the various soils, and their minute constituent parts. Chemistry has commenced where geology closed, and by a careful analysis of these constituents of the various soils, of the principal agricultural products, and of the usual manures, is laboring to establish upon philosophical principles, the true relations between the soil and the manure to be applied, and between both and the crop to be planted and produced. It is seeking out, with rapid success, the appropriate food of the various vegetables cultivated by the farmer, the soils and manures in which the food of each is found, and the way in which it may be most successfully administered. So with the food of the domestic animals, and the most economical manner of feeding it.

These investigations are the reverse of the former system of arbitrary experiments. There a result was made to justify the arbitrary means adopted to produce it. Here causes are ascertained, and being so ascertained, are relied upon to produce their natural effect, which effect is the result sought.

The importance of this great subject is effectually arousing the attention of the literary and scientific men of the country, and the success already experienced is drawing to these researches minds qualified for the labor, and energies equal to its rapid advancement. The progress made is bringing together the unsettled mind of the country, and producing the very general impression that the time has arrived when the foundations of a systematic, practical agricultural education should be laid, and the superstructure commenced.

Management of Cattle, Sheep, &c.

The following views we take from Dr. Lee's address, delivered before the Erie (N. Y.) Agricultural Society.

Permit, then, a practical agriculturist, who has devoted the best energies of his mind for years to the study of agricultural chemistry, vegetable and animal physiology, to say to those of you who are woolgrowers, that by keeping the animal warm in winter, and cool in summer and quiet throughout the year, by stimulating with the elements of wool, the organs that se-

crete this valuable covering of the sheep, it is practicable to clip six pounds of wool as the product from the same amount and value of raw material that now yield you but three pounds. To accomplish this important result, this physiological change in the products of this living machine, you must quiet the action of the lungs. These expel from the system every moment, night and day, a needlees quantity of animal food, which, under more favorable and other circumstances, might have been converted into wool, tallow, and muscle. Mark me. There is a positive loss, a needless throwing away of twenty to fifty per cent, of the food in wintering all domestic animals, which is literally burned up by nature, in this cold climate, to keep their blood and the whole animal, some forty or eighty degrees warmer than the temperature of the air with which they are surrounded. It is not merely the hay, oats and corn in domestic animals, and the bread and meat in man, which are consumed like the animal oil in a lamp to warm the system, that are lost, but by inhaling a solid and dense atmosphere, and bringing a larger amount of oxygen gas into the lungs, and through them into the blood than is needed, inflammation, are generated, ending in consumptions, alike in man and beast. An animal is an electorial battery or machine. It is praticable so to excite the organs that form fat in a pig, in a positive degree and to so quiet all the other organs of the animal by a kind of negative electricity, that the animal shall transform nearly all of its food that can be converted into fat, into that well known substance.—The same remarks will hold true, in a good degree, when applied to the secretion of milk in cows, and the secretion of wool in the capillary organs of the sheep. On the other hand, it is quite as easy to make a pig secrete an enormous amount of bone, and an enormous amount of gristle, to have a hide as thick as a board, a nose like a plough beam, ears like sides of sole leather and legs like an elephant.

From the Boston Cultivator.

Wintering of Stock.

The food taken by animals goes to fulfil two important purposes. The one is nutrition, or the assimilation of new material to supply the waste and contribute to the growth of the system The other, calorification, or the generation of animal heat. These two functions are so intimately connected and dependant upon each other that one cannot be suspended without the consequent suspension of tho other. Hence. if an animal be caused to abstain from food for a length of time, the temperature of his body will be reduced, as death by starvation approaches, which event may be often deferred by arousing his languishing powers by the stimulus of artificial heat.

On the other hand if an animal be exposed for a length of time to a low degree of temperature and not fed more sumptuously than in other circumstances, emaciation will raqidly ensue, and death take place by inanition. In both instances there is a want of material for the generation of animal heat. In the former, the fuel is withheld, and in the latter, there is an extra quantity required to counteract the influences of cold. The extinction of life would in both instances take place much sooner were it not that nature had provided a source of temporary relief. In such emergencies, the fatty tissue is absorbed into the circulation, and for a while serves as material for nutrition and combustion, but if it becomes exhausted before relief is brought, the animal perishes.

Now if stock be exposed to the influences of cold, it follows that if they are not provided with a very extra quantity of food as a last and only resource, they will commence the consumption of tissues of their own bodies, and their owner will soon have occular demonstration of the fact, by their prominent bones and shrunk hides.

Every one who has had charge of animals during exposure to cold, could not have failed to notice the great voracity with which they devour even the poorest kinds of fodder, which during mild weather they could only be made to partake of after an abstinence more or less protracted. This increased demand is caused alone by the influence of cold, and under such circumstances, the practice followed by some of obliging their creatures to subsist alone upon straw and the poorest kinds of hay, on account of the increase of the appetite, is alike destructive to the interests of the owner, and revolting to humanity.

The fat, besides being an important resource when the vital powers are on the wane, being a good non-conductor of caloric affords protection from cold. Hence it is that lean animals are got through the winter at a much greater expense than those in better condition, there being an extra amount of food needed to support calorification.

Wintering Bees.

Large strong swarms will generally do well in exposed situations, if they have good ventilation.

The best way to manage large, full hives, is to place an empty hive or box under them, that they may have air. Another advantage is the water from their perspiration running down beyond their influence. Otherwise it may congeal near them, and, in mild weather thaw, by the warmth of the bees, produce dampness and death.

In all cases, whether swarms be large or small exposed to storms or not, they should be protected from the sun in winter, in order to make the temperature as equal as possible, and save the bees from the injurious extremes of heat and cold, which, besides being destructive to the health and life of bees, causes a greater concumption of

honey than when the bees lie dormant in cold weather. Another great injury from sunshine, the bees are revived, and go out on pleasant days, and are often chilled by cool winds, and fall on the snow. In such cases the cannot recover, and thousands are lost in some winters from a single hive. When a hive is completely shaded the bees will not generally come out excepting it be quite mild, so that they can fly out in safety.—*Boston Cultivator.*

Fine Wool.

At a meeting of the Farmer's Club in New York, Mr. Fleischmann made some remarks on the wool of Merinoes. He said :—

"The great desideratum to be obtained by the wool growers is to produce such a staple as is demanded by the manufacturer. This is not well understood in this country, and it took forty years for the growers in Silesia to arrive at this knowledge, and then it was obtained only by a convention of the manufacturers and growers—a convention which he thought would be useful in this country. He classified the various kinds of wool into nearly twenty different *staples*, as he termed them ; each determined by the *curve*, or formation of the hair of the wool. In the perfect staple, the hair curves in the manner of spiral thread or cork, equally from the foot to the surface, and of equal fineness from one end to the other. Variations from this were termed the pointed staple, the untrue staple, the broom staple, &c., all of which could not be so well wrought into fine fabric as the perfect staple.

In the fine or perfect staple there are about 80 curves to the inch, and the fleece is about 1½ inch thick. The Germans have an instrument for measuring these curves. The fineness of wool, or the perfect staple, cannot be obtained at once. It took many years to attain it in Silesia. The number of these hairs to a square inch in a country sheep is about 5500 ; in a mixture of the merino with the country, of the tenth generation, about 13,000 ; in the twentieth generation the fine wool predominates, the color is darker, and there is plenty of yolk. In this generation there are 27,000 hairs to the square inch, and in the thirtieth generation and upwards, from 40,000 to 48,000 hairs. Fleischmann exhibited drawings of some of the sheep of the celebrated Von Thaer.

Seeds of Fruit Trees. Seeds of fruit trees that are intended to be sowed next spring, should be put into sand of tolerable moisture and kept in this state during winter. Pear and apple seeds sown dry in the spring, will not generally vegetate till the next spring. In some cases it is the same with the grape, and so it is with most all fruit seeds. Seeds kept as we have named in the cellar during winter, will vegetate as well as though they were exposed to the frost.

Tenacity of Seeds for the Vital Principle.—Seeds are composed of starch instead of sugar or sacharine matter, to which they turn in the process of vegetation. The reason for this is found in the fact, that starch does not dissolve in water and decay, while sugar does, and it often happens that in the propagation of some species of plants, the seed must retain its vitality for a long time, before it finds *opportunity* for vegetation. Instances have occurred where seeds have been found in digging, so far below the surface, that the only probable supposition is, that they were deposited on some former surface of ground, and buried by some great convulsion of nature, perhaps thousands of years ago. These seeds on a proper exposure to heat and moisture have germinated, and the species of the plant produced has been found entirely different from anything indigenous to the region where the seed was found buried. It is a familiar fact that where new lands are cleared and burned over, an entirely different class of trees often spring up, and plants whose seeds must have lain dormant for a long period past, perhaps longer than the heavy forest trees, with which the land was recently covered, had occupied in their growth. Wheat taken from the coffin of an Egyptian Mummy, has been planted and germinated, after having been laid up in such a strange granary for more than three thousand years.

Gardening.—Horticulture, after all that has been said and written, deservedly, in its commendation, is but an embraced department of the more enlarged science of Agriculture. It is the *great* on a *reduced* scale: to a certain extent, it is the practical cyclopedia, as well as the model farm of the agriculturist.

How happens it, that so little attention is given to Horticulture in the United States? The farmer acts as if he would not waste on the "*little patch*," the labor which would be more profitably employed in the wide extended meadow, or the large corn-field. Here rests the error.—There is no other acre on the farm, which produces so large a return as that of the kitchen garden, nor is there any profit in proportion to the labor and capital expended. The farmer instead of saying, I am expending too much on this spot," might better say, "I am spending too little." The kitchen garden in truth, is the proper school of the Agriculturist. There he will learn the great value of properly prepared compost, without which his garden will produce a scanty crop ; he will there learn that manure, in order to secure its utmost benefit, must be buried beneath the surface, and not thrown loosely on the surface ; he will there learn the great value of irrigation. The principles of the kitchen garden, are in many instances applicable to the farm generally, and may often be adopted with great advantage.

XUM

Wonders of Science.—The late Dr. Chalmers, speaking of Astronomy, remarks:—"While the telescope enables us to see a system in every star, the microscope unfolds to us a world in every atom. The one shows us the insignificance of the world we inhabit; the other redeems it from that insignificance—presenting us a universe in the compass of a point, where the Almighty Ruler of all things finds room for the exercise of His attributes." 'Recent discoveries in Geology have brought to view a great multitude of facts, truly wonderful—especially respecting the state of animate creation many centuries past. While on the one hand it is found, by the remains of some ancient animals, that they were larger than any now living upon the earth; on the other hand, miscroscopic animals, almost inconceivably small, yet possessing mouths, teeth, stomach, muscles, wings, glands, eyes and other organs, are not only found in a fossil state, but forming rocks and soil for miles in extent. Chalk, and even flint, and some of the gems, are found, to a great extent, to be composed of animalculæ. A cubic inch of iron ore is said to contain the remains of one billion of living, acting, reproducing beings. Professor Hitchcock states, that the silicious marl, found under peat swamps in New England, appears to be made up almost entirely of the skeletons of animals. It is also said that a thousand millions of these animals would, together, form a mass no larger than a grain of sand.—*Far. & Mec.*

SCHOOL OF APPLIED CHEMISTRY.

[Attached to the "Department of Philosophy and the Arts," in Yale College.]

The instructions in the Professorship of Agricultural Chemistry, by Professor J. P. NORTON, is intended to unite as much as possible, practical views with theory; to give the untaught farmer an opportunity to become acquainted with so much of science as shall enable him to reason upon his daily pursuits, and to understand the great principles upon which good cultivation must depend. A course of Lectures will be delivered in the winter of each year, commencing in January and continuing about two months, there being four lectures in each week. The subject of the course will be—the composition and nature of the soil, the plant, and the animal—theories of rotation of crops, and of feeding—modes of draining—the different kinds of manures, their value and how beneficial—the improvement of waste lands, &c. &c.

The Department of Philosophy and the arts in Yale College, of which the School of Applied Chemistry is a part, has been organized with a view to meet the wants of those who desire to follow the studies embraced under it further than they are pursued in a collegiate course.

A college education is not however required of those who become students under this department.—*Far. & Mechanic.*

American Farmers.—Many thousand farmers in New England rear large families, pay all their debts and taxes promptly, and live independently, well clothed and comfortably housed and provided for, and lay up money, on farms of 50 acres. The idea is, that these people labor severely. This is a great mistake. They have much, because they waste no time. With them there is 'a place for every thing, and every thing in its place.' Their horses and cattle, tools, and implements, are attended to with clock-like regularity. Nothing is put off until to-morrow which can be done to-day. Economy is wealth, and system affords ease. These men are seldom in a hurry, except in harvest time.—And in long winter evenings, or severe weather, which forbid employment out of doors, one makes corn brooms, another shoes, a third is a carpenter, cooper, or tailor; and one woman spins, another weaves, a third plaits 'Leghorn bonnets." And the family thus occupied, are among the most healthy and cheerful in the world. It is easy with them to reduce their wishes to their means, if inconvenient or imprudent; and to extend their means to their wishes. —*Sleeper.*

What is the Matter?—Dr. Lee, late Editor of the Genessee Farmer, but now of the Southern Cultivator, relates the following, which happily illustrates the importance of the *science* as a hand maid of the Art of Agriculture:

A friend of the writer, who is largely engaged in the nursery business, in the vicinity of Rochester, N. Y., lost, quite unexpectedly, over 17,000 choice grafted apple trees, a year or two since, in consequence of having exhausted the soil in which they grew, by the previous removal, in trees, of the minerals that form the ash of the same. He was not aware of this fact till he brought some of the soil to our laboratory for analysis. It was there clearly revealed, that apple trees could no longer flourish in that earth, from a lack of *lime* and *potash*, which his stable manure did not supply in due abundance, for he had relied on stable dung to make his crop. We prescribed precisely such minerals, and in such proportions as the tree to be organized yields on analysis. The result is, that the trees so treated this season, have made about twice as much wood as others in different and richer ground. The organization of wood, starch, oil and sugar, we have made a study for years. If any one imagines that these substances can be formed out of carbon and the elements of water, without the assistance of alkalies, or alkaline earths, he will find, on a fair trial, how greatly he is mistaken. The making of fine fruit is a still more difficult operation.

The radiation of heat is more free through a dark colored surface than through light.

Chimnies.—The draft of a chimney is made by the ascent of a current of warm or heated air from a room into a colder atmosphere above the house. When a brush heap is set on fire in a still atmosphere, the cold air rushes in on all sides, and the flames ascend in an acute cone to a great height. Build a fire in a fireplace, and why should one form of throat to the chimney, and of structure in the latter, draw better than another? Precisely for the reason, that a stove will draw better when its door is closed, leaving a small aperture at its bottom, through which the equilibrium is sought to be restored by the rushing of air from without into the stove, and the open space above. *The aperture between a fireplace and the chimney should not exceed one-third the volume of the opening through the chimney to its top.* In constructing chimnies in the cities of the State of New York, it is now the universal practice to carry up the outlet from each fireplace separate from all others in the same stack. The draft is made by constructing a small throat, or a narrow aperture, between the air in the room and that in the chimney and above it. An open FRANKLIN stove will smoke if its outlet from the fireplace to the roof out doors is of one uniform volume—at least it is quite apt to. Change the relations so as to make the entrance of the air into the stove much smaller than its outlet, and a strong draft will be formed at such entrance. Such are the facts as verified by experience. The reason is the great difference in the weight of dense and rarefied air. A concentrated movement at any point where the equilibrium is restored, is unavoidable, for the same reason that a light cork, pressed down to the bottom of a bucket of water, rises quickly to the top, if left to obey the law of its specific levity or gravity.—*Dr. Lee.*

Raising Apple Trees.—The nursery ought not to be richer than the land where they will be set when transplanted out of the nursery into the place where they are to grow and make trees for fruit. Trees from a rich sheltered nursery are not, for me to set, worth the setting. If they are set into gardens and other rich places, they may answer; but in that case they will be short lived. It has been said that there are two ways of raising an orchard. One, to set good trees in a rich place, and keep the land well manured and tilled, the greatest part of the time; and in that case considerable fruit may be expected in seven years from the time they are set in the orchard. The other way, is to set them in untilled land, and manure around the tree with suitable manure, and dig about them and keep them in a growing state. In this latter way, it has been said it would take three times as long, or twenty-one years, to get as much fruit as you would get in seven by the other mode. You will have no need to ask which will be the longest lived trees.

Trees ought to be about six years from the time they are sowed before they are set in the orchard. The distance in the orchard ought to be about forty feet, if you expect to raise large, fair apples for sale.

Hulling Wheat.—Almost every yankee housewife knows how to *hull* corn, and her children know what it is good for when put into a flowing bowl of rich milk. Recently a Mr. Samuel Brentz, of Boonsborough, Md., has devised a mode of what we suppose to be hulling wheat, although the papers say it is a mode of removing the bran from the wheat—leaving it pure unground flour. If it be a mode by which nothing but the starch of wheat is left behind, we think it more curious than useful. The perfection by which a greater part of the coarser particles of wheat are now separated by the sieves and bolts in our flouring mills, instead of being a blessing has been a curse to mankind. We use a strong term, but it is the best one to use. A majority of the cases of dyspepsia and general debility which are now so prevalent, are the results of living almost exclusively on superfine flour. God made the other parts of the wheat to be eaten in order to supply a very important part of our systems, by digesting and assimilating it to our bodies. But man in his pride has said, we will eat only the finest of the flour, and throw away the rest. And man pays dearly for his folly, bringing upon himself the many distressing diseases which he would not have, had he lived more conformably with the designs of his creator, who made every part of the cereal grains for an express purpose in the animal economy.—*Maine Far.*

Salt for Fruit Trees.—The following fact illustrative of the value of common salt as a manure for fruit treess, is given by a writer in the Gardner's (London) Chronicle:

"I have a large, handsome Biggazzean cherry tree, which blossomed and fruited, then drooped. I cut from the turf a triangular six inch trench round it, six feet from the trunk, half filled it with salt, and replaced the turf. I have had noble crops ever since, but the tree makes very little new wood."

The same result attended an experiment which was recently made by us on a plum tree that had immature fruit for years.

Cheap Postage Successful.—The cheap postage system seems to be gaining friends even among the postmasters, and it is said the Postmaster General begins to be in favor of it. The deficiency in the revenue during the first year was $800,000—last year, $640,000, and this year, $40,000. In a year or two there will be a surplus, and then the postage must come down to two cents per letter. The people will have it so.

XUM

Cisterns for Farm Buildings.—In all regions where lime-stone or other impurities in the soil abound, or where the farmers unavoidably have to sink their wells to a great depth, we would recommend the construction of cisterns near all of the principal farm buildings, for retaining the water which may fall from their roofs. By this means a large supply of wholesome water may be had all the year round, at a comparatively small cost, which will not only be essential in all purposes about the house, but will be found useful in irrigating the garden, as well as for the watering of stock.

The most convenient and durable mode of constructing a cistern, is to make it of a circular form, under ground, with the bottom and sides lined with stones or bricks laid in hydraulic cement; and in many cases mortar may be plastered on the sides of the pit without the aid of bricks or stone. A cistern eight feet in diameter and nine feet deep, will hold about one hundred barrels, and will require three thousand four hundred bricks to face its sides. The cement to be employed should be of first rate quality, such as that used in the construction of the Croton aqueduct, or the Erie Canal. If the buildings be situated on a hillside, it would be preferable to conduct the water to the place where wanted for use by means of a pipe, without the labor of pumping, or lifting it out by hand.—*Amer. Agriculturalist.*

Amount of Corn on two acres.—Mr. Editor: I want to notice through the columns of your valuable paper, the number of bushels of corn which I raised upon two acres of land, the past season, and also the way that I raised it. Last fall about the 20th of September, I plowed and subsoiled two acres of rather tough swarded, gravelly land, and in the spring I spread on seventy cartfuls of manure from the barn cellar, and plowed it in. After cross plowing I harrowed it well, and furrowed it both ways, three feet and a half apart, and put twenty-seven loads of good compost manure in the hill; I planted it the 11th and 12 of May. I hoed it well twice. This fall gathered it and husked it out, and had enough for 217 bushels of good corn. Yours truly,

John Day, Jr.

West Boxford, Nov. 1847. *Maine Far.*

Wines of France.—A company of large capital exists in Paris for making Champagne from the poorest Chablis. It is sweetened, charged with gas, bottled, labelled, and ready for market in an hour after leaving its quiescent state of *vin ordinaire.* The drink, however, is palatable—vinous—effervescing—bears a good price—is slightly intoxicating—does not cloy the appetite, and so answers all the ends of all tavern keepers and tavern loungers.

Nor is this all of counterfeiting. Champagne or what passes for Champagne, is also made from apples, and gooseberries, and beets, and I know not what beside.

Some idea may be formed of the extent of the vineyards, from the fact that a single proprietor expends $25,000 a year for corks alone. The annual average product of all the vineyards in the Champagne district, is fifty millions of bottles. Of this number, nearly half goes every year to Russia; England has of course a lion's share; Germany boasts of nearly as much; there is plenty to be found in Italy—as much more at Madrid; the French drink of course occasionally, and America and the Indies are noway behind the others in claim.

The vine culture is much the same in Germany as in France.

The famous vineyard of Johannisberg is in full view of the river.

Its extent is only 62 acres, and it is attended with the utmost care. Its product, in good years is 50,000 bottles—valued at nearly as many dollars.

A Useful Rule.—The following useful rule for measuring grain, &c. we extract from the School Friend. Its convenience will recommend it for general use.

Multiply solid feet by 45, and divide the product by 56, and the quotient will be bushels of 2150 2-5 inches each. Thus, suppose it is required to find how many bushels a wagon box will contain, which is 8 feet long, 4 feet wide and 2 feet deep. By multiplying the dimensions together, we find that the box contains 64 solid feet, then multiplying this by 45, and dividing by 56, the quotient is 51 2-7 bushels.

The above rule is perfectly accurate, since 45 is to 56, as 1728 is to 2150 2-5. The smaller numbers are found by reducing the larger ones to fifths, and then both by their common measure.

☞It ought to be generally known though it is not, that a few grains of Subcarbonate of soda dissolved in new milk immediately before straining it, will preserve its sweetness in hot weather several hours longer than it would otherwise keep. The quantity is 10 to 15 grains to the quart. It does the milk no harm whatever, for tea or coffee; it is even beneficial to the latter.

Northern Rice.—Gen. Verplanck, the Commissioner to negotiate a treaty with the Chippewas, in speaking of the wild Rice which grows abundantly in Minnesota, says it is better than the Southern Rice. The berries are larger and its flavor is better; for when boiled and stewed and left to cool it forms a consistent mass like good wheat bread, and more nutritious. Any quantity of it grows on all the lakes in this Northern country. The outlets and bays are filled with it. It ripens in the month of August, and is the main reliance of the Indians during the winter months for their sustenance.

New Planting Plough.—This invention of the Rev. Absalom B. Earle, of Harpersville, N. Y., consists of a kind of cart, upon which is placed a cylinder made to revolve within a case or hopper by the action of the wheels. The cylinder has upon its periphery a number of recesses which can be enlarged as desired; these take up a quantity of the seeds in the hopper and carry them around, and deliver them in a spout suspended to the bottom of the cart. The mouth of the spout has a valve or valves over it, which are opened at each delivery of the seed and allows them to fall into the furrow made to receive them, by a double mould board plough, which advances in front of the same. After the seed is dropped in the furrow, it is closed up so as to bury the seed a certain depth in the ground.—There is another feature quite novel attached, and that is an alarm which signals each deposite of seed. A horse propels the cart, and a boy sits upon it to drive and feed the seed into the hopper from a bag as they are wanted. When the cart has crossed the field, it is turned round and placed the distance required for the width of the furrow; he then raises one wheel of the cart by a handle and turns it round until the signal announces a deposit of seed. This ensures the planting in exact rows.

Broadcast Sowing Machine.—The Broadcast Sowing Machine has now come into pretty general use, especially in those districts where the arable system is under the best management, and on large farms is nearly superceding the process of hand sowing. It not only sows all the white grains, wheat, barley, oats, when sown broadcast, in a very uniform manner, and with any desired allowance per acre; but it serves in a superior manner for grass-seeds, in point of distribution, and, in case of windy weather, is greatly superior to hand sowing. This last advantage arises chiefly from the low position of the discharging orifices, as compared with the height of the hand in sowing; but partly, also, from the more direct discharge, of the seed from the machine; its velocity of discharge, likewise and the distance it has to fall, being always uniform.

Apple Paring Machine.—An improved machine for paring apples has been invented and patented by Messrs. Bullock & Benson of New York. We had supposed that Yankee ingenuity had previously brought this article to the greatest possible perfection; but it will be admitted that something new has been added, when the fact is known that this machine will perfectly take off the skin of an apple, in the neatest manner, in about one second.

Easy method of breaking Glass in any required direction.—Dip a piece of worsted thread into spirit of turpentine, wrap it round the glass in the direction that you require it to be broken, and then set fire to the thread; or, apply a red hot wire round the glass, and if it does not immediately crack, throw cold water on it whilst the wire remains hot.

Wheat in Oregon.—It is stated on what is considered authentic information, that not less than 150,000 bushels of wheat were raised in Oregon during the year 1346.

Wheat appears to be the principal crop, and this year, it is said, it will be much more abundant than it was last year. The inhabitants complain much on account of the scarcity of vessels. They would export considerable grain if they had the means.

Organic Vibrator.—An English Surgeon has invented an extraordinary powerful small instrument, called the Organic Vibrator, for deafness, said to surpass any thing of the kind hitherto produced; it is modelled to the ear, so that it rests within without projecting. Being of the same color as the skin, it is not perceptible.—The powers of this valuable instrument are said to be so great as to bring very defective hearing of long standing to its perfect and natural state.

Mutton.—The editor of the Tennessee Farmer declares his preference for the ovine over the bovine or the swinish race. He says on his knowledge of physiology—which none will dispute—that a pound of lean, tender mutton, can be procured for half the cost of the same quantity of fat pork; and that it is infinitely healthier, in summer, especially; and that those who feed on it become more muscular, and can do more work on it with more ease to themselves. He knows of nothing more delicious than smoked mutton hams.

New Security for Bank Notes.—Messrs. Crane & Co. of Dalton, Mass., manufacturers of bank note paper, have invented a very simple and efficient method of preserving the denomination of a bill from alteration. Threads of silk or cotton are arranged in parallel lines, lengthwise with the note, and embodied in the substance of the paper during its manufacture. A one dollar bill has one thread, and one is added for each denomination up to five dollars; then a ten dollar bill has six threads; another is added for twenty, fifty, one hundred, five hundred, and one thousand—the last having eleven threads It must be very difficult, if not impossible, to insert another thread after the note is finished; and as the threads mark its value as distinctly as the figures, the chances of a successful alteration are at least very greatly diminished. The Mechanics' Bank Association, of this city, and several of the banks in this State and at the east have ordered the threaded paper, and it will probably come into general use.—*Jour. of Com.*

XUM

GENERAL INTELLIGENCE.

Central Railroad.—This road, it appears is rapidly progresssng towards completion. Contracts for grading and building the superstructure, have been let the whole distance from Kalamazoo to New Buffalo, and it is expected the road will be completed to the latter point by the close of the year 1848, or early in 1849. Thirty-five miles from Detroit westward, have been re-built with heavy T rail. The new passenger depot and car house is 325 feet by 75. The merchandize depot is *fifty-one rods* long, and 100 feet wide, the largest in America. The receipts for the last year were $385,457 74. Total receipts of the Company to the first of Dec. being fourteen months and eight days, $470,575 38. Its *operative* expenditures for the same time, were $186,531 26, leaving $281,044 22 as their net earnings. The number of men employed in operating the road, is 276, and in constructing, 2,500.

Balance of Trade.—It appears that the ballance of trade has been in our favor the past year, our exports exceeding our imports by about $12,000,000- No country can be prosperous with the balance of trade against it, for the excess of imports must be paid in specie, which drains the country of it, and cripples the banks and business operations generally.

☞By a recent census of New Orleans, it appears that the population of that city has retrograded, during the past year from 95,000, to 79,-000. In 1840 the population was 104,000.

Postmaster General's Report.—Deficiency for the past year 33,000. The estimated surplus for the current year is 213,951.

Congress.—Mr. Calhoun has offered resolutions in the Senate, adverse to the incorporation of Mexico into the Union, or holding it as a conquered province. Hr. Dickinson on the other hand, has offered resolutions which affirm it to be the true policy of the government to keep annexing contiguous territory, provided it be done justly. Not much is expected to be done till after the holidays.

☞Mexicoa. Anayo has been elected President of Mexico, and is said to have dispatched Commissioners to the City of Mexico to negotiate for peace.

☞ A report is current, that Gen's Worth and Pillow have been arrested by order of Gen. Scott for contempt—doubtful.

☞ There has been a most destructive flood on the Ohio and its tributaries, the Miami, Scioto, and Muskingum. The Ohio rose 60 feet above low water mark. At Cincinnati, loaded canal boats passed through Yeatman street, and many families in different streets were rescued from their dwellings by boats. The floor of the Broadway Hotel was two feet under water.

☞The annual report of the Secretary of the Treasury is engrossed mainly with the subject of the Tariff, tracing its history from the commencement of the government, with a view to show, that a high tariff has always operated badly, while a low one has as invariably conduced to National prosperity. It recommends a reduction in the price of public lands. It is very long.

The report of the Secretary of War, scouts the idea of withdrawing our troops from Mexico, repudiates the plan of establtshing and maintaining a defensive line, and that of overrunning all Mexico, and recommends that we retain possession of the territory already conquered, and maintain a force there sufficient to hold all the principal places, keep open communication with the coast, enforce the payment of contributions levied, and to take advantage of favorable opportunities to take possession of other principal places not yet conquered. It is also long.

Foreign.—Civil war is about breaking out in Switzerland, in consequence of an act of the Diet to expel the Jesuits. The Diet has called for 50,000 men, and have already 25,000 in the field. The Catholic party have an army of 20,-000. In Ireland there is said to be an inadequate supply of food for the winter. The people are refusing to pay rents. In England, new suspensions are frequent, but the general panic seems to have passed its crisis, and confidence is beginning to be restored. Parliament was opened on the 18th ult.

A man by the name of Buck, of Rochester, N. Y., was recently murdered at Pontiac, by stabbing. The murderer's name is Finley.

Another arrival from Europe—fall of breadstuffs somewhat—famine again in Ireland—cholera advancing in Europe.

☞Rev. Guy Beckley died at his residence in Ann Arbor, Dec. 26, of congestion of the lungs.

Accounts from Valparaiso state that 7 towns in Chili and Peru have been destroyed an earthquake.

A boot maker of London has invented a rotary heel to be applied to boots so that when run down upon one side by uneven treading it can be easily twisted round, thus producing another even surface, and easier locomotion in the wearer.

A man named Shaw, near Cleveland, Ohio, has invented a new style of spectacles. He has been successful in combining three sets of lenses in such a manner, that they can be readily adapted to seven distinct focal distances-

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☞By reducing wheat to flour, the quantity of the latter left at tide water this year, compared with the corresponding period of last year, shows an excess equal to 1,085,082 barrels of flour.

A Word to the Friends of the Farmer.

With the present number commences the 6th volume of the Farmer. We have printed some extra copies for new subscribers. Those whose names are first sent in, will of course stand the best chance for back numbers.

And now, we would put it to our agricultural friends to say, how many new subscribers they will send us, to commence with the volume?

ARE THERE NOT 100 FARMERS

In the State of Michigan, who, with very little trouble, can send us 10 names each?

ARE THERE NOT 200 FARMERS

in the State, who can send us 5 names each?

ARE THERE NOT MANY HUNDREDS

who can send us one or more names each? We do not ask this as a gratuity. According to our terms, we offer you full pay.

Many Postmasters have heretofore taken quite an interest in the Farmer, and have forwarded many new names. We hope that all the Postmasters in the State will take the matter in hand, and put forth the influence which they are so well able to exert in behalf of their own State Agricultural paper.

ARE THERE NOT 200 POSTMASTERS

in the State who can send us from one to twenty names each?

Receipts Communicated for the Farmer.

Cheap Green Paint for Fences.—Whitening, 5 lbs; Yellow Ochre, 2 lbs; Lamp Black, 2 oz; Linseed Oil, 5 lbs; Oil Turpentine, 1 pint. The Whitening and Yellow Ochre must be sifted very fine, and the Lamp Black mixed in gradually.

Whitewash for Wood.—1 bushel Lime, fresh burned; 1 lb white Vitriol, (sulphate of zinc;) 1 quart Salt, to be well mixed with warm water. This Whitewash is scarcely affected by weather.

Killing Rats—If Carbonate of Barytes is mixed with 10 or 12 times its weight in grease, and put where rats prevail, they will greedily eat it and die. The advantage of this poison is that it renders the vermin exceedingly thirsty, and running to the nearest water, they die as soon as they drink, and do not render the premises unpleasant by the dead bodies. It must be carefully kept from other live animals.

Horses that have the heaves may be greatly relieved, if not cured by feeding them on straw, instead of hay. This receipt was a souree of great profit to a large stage proprietor in New York, who bought up such animals at a cheap rate, and then used them as efficiently as if they were altogether sound.

To polish Steel as used in the Tower of London.—Dissolve ¼ oz Camphor, and ½ lb Hogs Lard together over a slow fire, taking off the scum as it rises; mix as much Black Lead as will make it an iron color; spread the composition over the steel, let it lie for 24 hours, rub it off with a dry linen cloth; and the metal will keep free from rust for six months.

To prevent boots from taking in water.—1 pt drying oil; 2 oz yellow wax; 2 oz turpentine; ½ oz Burgundy pitch, melt *carefully* over a slow fire. Rub this mixture whilst warm over new boots with a sponge or soft brush, at some distance from the fire, as it is highly inflammable, and repeat the operation as often as they become dry until the leather is fully saturated. They must not be worn till perfectly dry and elastic. Twice a day, for 4 or 5 days will be the time required. For winter farm boots the receipt is invaluable, as it not only prevents all water or snows entering, but adds greatly to the length of time they will wear.

To destroy Moss on Fruit Trees.—Wash them with a mixture of fresh cow dung, urine, and soap suds, which may be put on with a large brush.

Thin Whitewash has the same effect, but for a while disfigures the tree.

TERMS.—The MICHIGAN FARMER is published twice a month, at one dollar per annum in advance—after three months $1 25—after six months $1 50—after nine months $1 75. To clubs five copies for four dollars.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	$4 75a$6		Salt,	$1 94 a$2 00		
Corn, bus.	37½a	40	Butter,	14 a	16	
Oats,	22 a	24	Eggs, doz.	8 a	10	
Rye,	31¼a	35	Hides, lb.	3 a	6	
Barley,	34 a	37	Wood, cord,	2 25 a 3	00	
Hogs, 100 lbs.	3 00 a 3	25	Wheat, bus.	75 a	80	
Apples, do	25 a	50	Hams, lb.	6 a	8	
Potatoes,	35 a	38	Onions, bu.	41 a	50	
Hay, ton,	8 00 a10	00	Cranberries,	75 a 1	00	
Wool, lb.	22 a	28	Buckwheat 100 lbs.	1	25	
Pig iron, ton,	31 00 a34	00	Indian meal, "	87½		
Coal, Leh.	11 00 a13	00	Beef, do	2 00 a 3	00	
do Ohio,	4 00 a 5	00	Lard, lb. retail,	08		
Peas, bu,	37 a	38	Honey.	12½		
Beans,	75 a	80	Apples, dried,	1	25	
Beef, bbl.	8 00 a11	00	Peaches, do	1 75 a 2	00	
Pork,	10 00 a13	00	Clover seed, bu.	4	00	
White fish,	6 00 a 7	00	Herd's grass do do	1	00	
Trout,	5 50 a 6	00	Flax do	62½		
Cod fish, lb.	5 a	5¾	Lime, "	75		
Cheese,	6 a	7½				

FURS.

R'coon p'me large,	44 a62½		Red Fox no 1	1 00		
do do small,	31 a50		Grey do no 2	37½		
do no 2	12 a25		Wild cat no 1	37½a50		
Mink no 1	37½a50		do 2	25 a30		
M'sk rat p'me	9 a10		Otter no 1	3 00 a3	50	
do no 2	6 a7		Martin no 1	1 12 a1	25	
Deer red per lb	16 a18¾		Fisher no 1	1 25 a1	75	
do grey do	10 a12½		Bear no 1	3 00 a4	00	

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